

SECTION 706 TREATED AND UNTREATED TIMBER AND TIMBER PILES

706.01 STRUCTURAL TIMBER AND LUMBER. Furnish timbers and lumber being:

- A. Standard sawn Douglas fir or Larch.
- B. Graded under the current West Coast Lumber Standard Grading Rules or the Western Lumber Grading Rules.
- C. Grade stamped by an American Lumber Standards certified inspection agency.

The recommended design values under the rules for grading timbers and lumber grades cannot be less than those shown on the plans for the required minimum timber stress.

Note the grade, the grading rule, and the recommended design stress value for that rule on the shop drawings for each size.

Use only pieces of sound wood free from all decay.

When untreated timber is specified, it must show at least 85% heartwood on the girth, measured where the least amount of heartwood occurs on any girth. When treated timber is specified, there are no heartwood requirements and the sapwood amount is not limited.

706.02 VACANT.

706.03 POLES AND POSTS. Furnish the poles and posts as specified.

706.04 TREATED TIMBER AND LUMBER. Furnish structural timber and lumber, treated with a timber preservative specified as follows.

706.04.1 Treating. Furnish timber and lumber that is pressure treated retaining at least the minimum preservative treatment quantity per cubic foot (cubic meter) specified in AWPAC-14.

Use one of the following preservatives:

Creosote oil, creosote coal tar solution, 5% by weight pentachlorophenol solution, Chromated Copper Arsenate (CCA), type B or C, or Ammoniacal Copper Arsenate (ACA). Use preservative meeting AWPAC standards.

Treated timber or lumber to receive paint must permit the paint to adhere to the treated surface without discoloration.

Meet AASHTO M 133 requirements for all preservatives and their sampling and testing methods.

706.04.2 Incising. Mechanically incise timber and lumber of the following listed species having a nominal thickness of 2-inches (actual 38 mm thickness) or greater before treating:

Intermountain Douglas Fir
Pacific Coast Douglas Fir
Western Hemlock
Western Larch
Jack Pine
Lodgepole Pine

Northern White Pine
Red Pine
Sugar Pine
Western White Pine
Red Wood

Incise timber and lumber 3-inches (63 mm actual thickness) thick or greater on all four sides. Incise timber and lumber 3-inches (63 mm actual thickness) thick and less on the wide faces only, unless otherwise specified. The spacing and shape of the cutting teeth and the incising method must produce a uniform penetration. One and a half inch (38 mm actual dimension) center-matched material used for flumes, boxes, etc., do not need to be incised.

The minimum incision depths are as follows:

| Size in Inches (mm) | Minimum Depth of Incision in Inches (mm) |
|------------------------------|---|
| 1½ X 12 (38 X 286 mm) | 3/8 (9 mm) |
| 3 X 12 (63 X 290 mm) | 7/16 (11 mm) |
| 4 X 12 (89 X 290 mm) | ½ (13 mm) |
| 8 X 10 (190 X 240 mm) | 9/16 (14 mm) |
| 10 X 12 (240 X 290 mm) | 5/8 (16 mm) |
| 12 X 12 (290 X 290 mm) | ¾ (19 mm) |

Intermediate size in proportion.

- C. Inspection.** Each shipment of treated timber or lumber must be inspected before and after treating at the plant by a Department inspector. The inspector must stamp the ends of each accepted piece with the inspector's copyrighted stamp. File a true impression of the copy-righted stamp with the Department before transporting timber or lumber to the project. Provide the Project Manager the inspector's itemized report of all timber and lumber inspected, giving temperatures, quantity of preservative, time of treatment, length and sizes of timbers, total footage, and other pertinent information. Treated timber and lumber not bearing the inspector's stamp in legible form cannot be transported to the project.

Each shipment of untreated timber and lumber must be inspected at its source by a Department inspector. If inspection at the source is, in the Project Manager's opinion impractical the material may be accepted by a "Certificate of Inspection" from a recognized competent grading or inspection bureau or agency.

The acceptance of any material or finished members by the inspector does not prevent their rejection if found defective. Replace rejected material and work at Contractor expense.

706.05 TIMBER PILES. Meet the following straightness requirements for both treated and untreated timber piles.

A straight line from the center of the butt to the center of the tip must lie entirely within the body of the pile. Piles must be free from short crooks that deviate more than 2½-inches (64 mm) from straightness in any 5 foot (1525 mm) length.

A. Treated Timber Piles. Furnish treated timber piling of Douglas Fir, Southern Pine, or Western Larch meeting ASTM D 25 requirements, excluding Tables 1 and 2.

Season, condition, and treat piles meeting ASTM D 1760 and AWPAs Standard Specifications for preservative treatment by pressure process. Use creosote oil, creosote coal tar solution, or a 5% by weight pentachlorophenol solution for the preservative.

B. Untreated Timber Piles. Furnish untreated timber piles meeting ASTM D 25 requirements, except for Tables 1 and 2.